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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/845,062 | 04/27/2001 | Ramon Vega | 60005174Z146 | 1683 |

7590 10/21/2003

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
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EXAMINER

TRAN, LY T

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 10/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------|--------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/845,062 | VEGA ET AL. |
| | Examiner | Art Unit |
| | Ly T TRAN | 2853 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 14 July 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-15, 17, 19, 20 and 22-29 is/are pending in the application.
 - 4a) Of the above claim(s) 17 and 20 is/are withdrawn from consideration.
- 5) Claim(s) 7 and 8 is/are allowed.
- 6) Claim(s) 1-6, 9, 14, 15, 19-27 and 29 is/are rejected.
- 7) Claim(s) 10-13 and 28 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement..

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All
 - b) Some *
 - c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

| | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Allowable Subject Matter

1. Allowable of claim 9-15 and 23-26 have been withdrawn

Election/Restrictions

2. Claim 17 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species there being no allowable generic or linking claim. Election was made **without** traverse on September 8, 2002 during an oral election with Mr. Peter Leppman.

Further claim 20 is directed to non-elected species 2, therefore it also withdrawn from consideration.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1,4, 9-15 and 22-27 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Taylor et al. (USPN 5,617,124)

With respect to claims 1, 4, 9., 14,15 and 22-27 and 29, Osborne et al. discloses an ink jet apparatus and a method comprising:

- At least one print head arranged to eject ink drops in a spitting operation
(Column 6: line 63-67, Column 7: line 1-6)
- A generally planar shelf mounted for rocking motion between the first and second position (Fig.3: element 70)
- A temporary spittoon arranged to move between first and second position (Fig.3: element 70), the temporary spittoon being arranged in the first position such that the ink drops are ejected onto a surface of the temporary spittoon, the temporary spittoon being further arranged to transfer the ink to the spittoon when in the second position (Fig.3, Column 8: line 2-58)
- In the second position, the temporary spittoon being arranged to transfer the ink to the spittoon and being located sufficiently distant from the nozzle plate to allow a capping or wiping operation to be performed (at the second position, the wheel spittoon 70 is turning upside down and the ink is fall in the spittoon chamber)
- A reciprocating shuttle arranged to move between first and second position and to actuate the spitting and the capping assemble (Fig.3: element 70, 64, 65)
- The spitting surface is located in a position such that the ink ejected onto the spitting surface is transferable under gravity to a permanent in storage container (Fig.3: element 90, 96, 74).

- Print head servicing comprising a cap (Fig.3: element 64, 65) or wiper (Element 66, 68)
- The movement of the temporary spittoon is linked so that of the servicing element so that the temporary spittoon is arranged to be in the first position when the servicing element is in the non-active position and to be in the second position when the servicing element is in active position (Fig.3)
- the surface of the temporary spittoon is substantially horizontal when the temporary spittoon is in the first position (Fig.3: element 70)
- the temporary spittoon comprises a flexible material fixed mounted to the shuttle (Column 5: line 1-2), the temporary spittoon being arranged to bend or deform between the first and second orientations and (Column 5: line 1-8)
- temporary spittoon is manufacture from a plastic material (Column 5: line 5-8)
- the temporary spittoon is manufactured from a foam material (Column 5: line 1-2)
- translating the spitting surface to a second position relatively more remote from the printhead, allowing clearance for print head wiping or capping (Fig.3 shows between the head and the spittoon must have a space, the space is allowing clearance for printhead for wiping or capping) and at the second position inclining the generally planar spitting surface to discharge the retained into the spittoon (after the wheel spins, ink is fall into the spittoon chamber)

- capping or wiping the print head when the spittoon surface is in the second position (Fig.3: the bottom wheel is in the second position wherein the cap and the wiper are in the position to cap or wipe the print head)
- active position of the servicing element corresponds to the first position of the temporary spittoon (Fig.3)
- the shelf is substantially rigid (since substantially rigid is not definitely rigid, elastomeric material in Taylor to read on the claim limitation).

4. Claims 5, 6, 17, 19, 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Osborne et al. (USPN 5,896,145).

With respect to claim 5, Osborne et al. discloses an ink jet apparatus and a method comprising:

- At least one print head arranged to eject ink drops in a spitting operation
(Column 6: line 63-67, Column 7: line 1-6)
- A temporary spittoon arranged to move between first and second position
(Fig.3: element 70), the temporary spittoon being arranged in the first position such that the ink drops are ejected onto a surface of the temporary spittoon, the temporary spittoon being further arranged to transfer the ink to the spittoon when in the second position (Fig.3, Column 8: line 2-58)
- the temporary spittoon is mounted on a shuttle, the shuttle being arranged to move the temporary spittoon between the first and second position (Fig.3)

- In the second position, the temporary spittoon being arranged to transfer the ink to the spittoon and being located sufficiently distant from the nozzle plate to allow a capping or wiping operation to be performed (Fig.3)
- A reciprocating shuttle arranged to move between first and second position and to actuate the spitting and the capping assemble (Fig.3: element 70, 64, 65)
- The spitting surface is located in a position such that the ink ejected onto the spitting surface is transferable under gravity to a permanent in storage container (Fig.3: element 90, 96, 74).

With respect to claim 6, Osborne et al. disclose the temporary spittoon is arranged to be orientated in a first orientation when in the first position and in a second orientation different to the first orientation when positioned in the second position such that when positioned in the second position the temporary spittoon is arranged to transfer the ink on the spittoon surface under gravity (Fig.3: element 95)

With respect to claim 19, Osborne et al. discloses the device is arranged such that in the second position the temporary spittoon is located substantially in contact with the spittoon of ink stored, the temporary spittoon being adapted such that the ink on the temporary spittoon surface is able to flow from the temporary spittoon the spittoon (Fig.3: element 95).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2853

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2 and 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Taylor et al. (USPN 5,617,124) in view of Cameron et al. (USPN 5,563,639).

With respect to claims 2 and 3, Taylor et al discloses:

- At least one print head arranged to eject ink drops in a spitting operation
(Column 6: line 63-67, Column 7: line 1-6)
- A temporary spittoon arranged to move between first and second position
(Fig.3: element 70), the temporary spittoon being arranged in the first position such that the ink drops are ejected onto a surface of the temporary spittoon, the temporary spittoon being further arranged to transfer the ink to the spittoon when in the second position (Fig.3, Column 8: line 2-58)

However, Taylor fails to teach the surface of the temporary spittoon is approximately 1 mm to 10 mm or 6 mm from the print head.

Cameron et al. teaches providing a spittoon having a venturi passage (34) that is approximately 1 mm to 10 mm or 6 mm from the print head (Column 4: line 21-29).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teaching of Taylor to have a venturi spittoon that is approximately 1 mm to 10 mm from the print head as taught by Cameron et al for the purpose of reducing tendency of the droplets to migrate out of the reservoir.

Allowable Subject Matter

6. Claims 7 and 8 are allowed.

- The primary reason for the allowance of claims 7 and 8 is the inclusion of the limitation of an ink jet print device comprising the temporary spittoon is rotatable mounted to the shuttle and arranged to pivot relative to the shuttle between the first and second orientations. It is limitation found in each claims, as it is claimed in the combination, that has not been found, taught, or suggested by the prior art of record which makes these claims allowable over the prior art.

7. Claims 10-13 and 28 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 28 is allowable over prior art of record because at least prior art has not been found to anticipate or teach the shuttle is arranged for substantially linear translation exclusively.

Claims 10-13 are allowable over prior art of record because at least prior art have not been found to anticipate or teach the temporary spittoon is arranged to bend or deform under the action of one or more cam surfaces.

Response to Arguments

7. Applicant's arguments with respect to claims 1,4,5,6 and 18-22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ly T TRAN whose telephone number is 703-308-0752. The examiner can normally be reached on M-F (7:30am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 703-308-4896. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0967.

lf

October 17, 2003

Muhl & Reh
Primary Examiner